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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,152	09/20/2000	Kimiyuki Shibuya	49218-C	7703

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EXAMINER

STOCKTON, LAURA

ART UNIT	PAPER NUMBER
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1626

18

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



ART UNIT	PAPER NUMBER
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17

09/666,152

## DETAILED ACTION

**Claims 9-12 and 14-18 are pending in the application.**

Rejections made in the previous Office Action that do not appear below have been overcome.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C.

112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 depends from a cancelled claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable Hirai et al. {JP 04-139172}. An English translation of Hirai et al. has been supplied previously.

***Determination of the scope and content of the prior art (MPEP §2141.01)***

Applicants claim benzoxazole compounds. Hirai et al. teach benzoxazole compounds which are structurally similar to the instant claimed compounds. See in Hirai et al., for example, wherein R<sup>1</sup>-R<sup>4</sup> are each hydrogen, A is oxygen, R<sup>5</sup> is alkyl, and R<sup>6</sup> is a substituted heteroaryl group (pages 1 and 2 of the Japanese patent and pages 6 and 16 of the

English translation). Also see, for example, compounds 5, 9, 17, 18, 34, 71, 72 and 77 in the Table on pages 7 and 8 of the Japanese patent.

*Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)*

The difference between the compounds in the prior art and the compounds instantly claimed is that of positional isomerism (the instant  $n$  is 2 whereas  $R^5$  is methyl in the prior art and the  $-C(O)NHR^6$  group is attached to the fixed carbon,  $-CHR^5$ ). In other words, the instant claimed compounds, for example, have an "ethylene" group  $\{-CH_2CH_2-\}$  whereas the prior art teaches an "ethylidenyl" group  $\{-CH(CH_3)-\}$ .

Alternatively, the difference between the compounds in the prior art and the compounds instantly claimed is that Applicants are claiming a homolog of the compounds taught in the prior art (the instant  $n$  is 2 whereas  $R^5$  is hydrogen in the prior art and the  $-C(O)NHR^6$  group is attached to the fixed carbon,  $-CHR^5$ ). In other words, the instant

claimed compounds, for example, have an "ethylene" group  $\{-\text{CH}_2\text{CH}_2-\}$  whereas the prior art teaches a "methylene" group  $\{-\text{CH}_2-\}$ .

*Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)*

Nothing unobvious is seen in substituting the known claimed isomer for the structurally similar isomer, as taught by Hirai et al., since such structurally related compounds suggest one another and would be expected to share common properties absent a showing of unexpected results. In re Norris, 84 USPQ 458 (1950).

Alternatively, to those skilled in chemical art, one homologue is not such an advance over adjacent member of series as requires invention because chemists knowing properties of one member of series would in general know what to expect in adjacent members. In re Henze, 85 USPQ 261 (1950).

One skilled in the art would have been motivated to prepare positional isomers or homologs of the compounds in the prior art to arrive at the instant claimed compounds with the expectation of

obtaining additional beneficial compounds that would be useful in treating ulcers. Therefore, the instant claimed compounds would have been suggested to one skilled in the art.

### *Response to Arguments*

Applicants' arguments filed January 28, 2003 have been fully considered. Applicants argue that the compounds of the present invention comprise a two carbon linker in which groups **A** (benzoxazole-Y-) and **B** (-amide-pyridyl group) are separated by two carbon atoms, e.g., A-CH<sub>2</sub>CH<sub>2</sub>-B in contrast to the compounds of Hirai et al. in which groups A and B are separated by a linker having only one carbon atom, e.g., A-CH(CH<sub>3</sub>)-B. Applicants argue that isomers are different from each other in chemical and physical properties. Applicants argue that the compounds of the prior art have a different utility.

Applicants' arguments have been considered but have not been found persuasive. Applicants claim benzoxazole compounds. Hirai et al. teach benzoxazole compounds which are structurally similar to the

instant claimed compounds. See in Hirai et al., for example, wherein  $R^1$ - $R^4$  are each hydrogen, A is oxygen,  $R^5$  is alkyl, and  $R^6$  is a substituted heteroaryl group (pages 1 and 2 of the Japanese patent and pages 6 and 16 of the English translation). Also see, for example, compounds 5, 9, 17, 18, 34, 71, 72 and 77 in the Table on pages 7 and 8 of the Japanese patent.

The difference between the compounds in the prior art and the compounds instantly claimed is that of positional isomerism or homology. In other words, the instant claimed compounds, for example, have an "ethylene" group  $\{-CH_2CH_2-\}$ , the linker which separates groups A and B, whereas the prior art teaches an "ethylidenyl" group  $\{-CH(CH_3)-\}$  or alternatively, the instant claimed compounds have an "ethylene group", the linker which separates groups A and B (e.g., A- $CH_2CH_2$ -B), whereas the prior art teaches a "methylene group" (e.g., A- $CH_2$ -B).

To those skilled in chemical art, one homologue is not such an advance over adjacent member of series as requires invention because



chemists knowing properties of one member of series would in general know what to expect in adjacent members.

The instant specification, under the heading "Best Mode For Carrying Out the Invention" {pages 12-13 (n is 1 to 15)} and the originally filed claims {e.g., claim 1, page 232 (n is 1 to 15)} support the expectation that homologs would have similar activity. The instant disclosed invention teaches that the instant compounds have ACAT inhibiting activity:

when **n is 1** (e.g., a **methylene** linker linking the amide residue and the 2-sulfoxide-benzoxazole residue) or

when **n is 2** (e.g., an **ethylene** linker linking the amide residue and the 2-sulfoxide-benzoxazole residue).

Also, see Compound Numbers 1-10 on page 32 of the instant specification. One skilled in the art would expect homologs to have similar activity as does Applicants as shown by the n variable being defined as 1 to 15 under the heading "Best Mode For Carrying Out the Invention" and by the specific disclosed specie.

Further, there is no requirement that the prior art must suggest that the claimed product will have the same or similar utility as that discovered by applicant in order to support a legal conclusion of obviousness. *In re Dillon*, 16 U.S.P.Q. 2d 1897, 1904 (Fed. Cir. 1990). For all the reasons given above, the instant claimed invention is found obvious over Hirai et al.

#### *Allowable Subject Matter*

Claims 15-18 are allowed over the art of record.

#### *Conclusion*

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

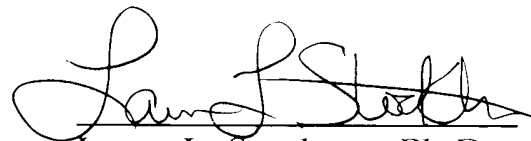
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of

this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura L. Stockton whose telephone number is (703) 308-1875. The examiner can normally be reached on Monday-Friday from 6:00 am to 2:30 pm. If the examiner is out of the Office, the examiner's supervisor, Joseph McKane, can be reached on (703) 308-4537.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1235.

The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

A handwritten signature in black ink, appearing to read 'Laura L. Stockton', written over a horizontal line.

Laura L. Stockton, Ph.D.  
Patent Examiner  
Art Unit 1626, Group 1620  
Technology Center 1600

March 25, 2003